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10/719,806	11/21/2003	Leonid Razoumov	010052D1	3290

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EXAMINER	
MALEK, LEILA	
ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
08/27/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No.	Applicant(s)	
	10/719,806	RAZOUMOV ET AL.	
	Examiner	Art Unit	
	LEILA MALEK	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-13 and 15-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-13 and 15-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 06/15/2010, regarding 35 U.S.C. 103(a) rejections of claims 1, 6-10, and 15-18 have been fully considered but they are not persuasive.

Applicant's Argument: Applicant argues that "Park fails to disclose or suggest determining an energy value for a transmission based on preamble information received and processed at a first station". Applicant further argues that the power measurer 351 disclosed in Park fails to determine an energy value based on anything but the entirely of the data received.

Examiner's Response: Examiner asserts that Park discloses a method for determining an energy value (see column 3, lines 14-49) for a transmission from a first station (i.e., a mobile station) to a second station (i.e., a base station) based on preamble (the pilot signal disclosed by Park has been interpreted as the preamble because preambles and pilots are both well known to the receiver and they have the same functionality) information received (see Fig. 2, signal 212 received at the mobile station) and processed at the first station (see Fig. 2, block 214, measuring the strength or energy of the pilot has been interpreted as processing the pilot).

Applicant's Argument: Applicant argues that one of skill in the art would not combine Rhodes with the other art of record. Rhodes does not mention anything about energy values or using energy values to improve the performance of decoders.

Examiner's Response: Examiner asserts that Rhoads discloses a wireless communication system (see the abstract), wherein a ROM in the telephone device

stores 256 different messages. Rhoads further discloses that when the telephone is operated, it generates an index for the stored messages and transmits this index to the call site allowing the central office station to identify the expected message from the matching database on a secure disk 52 containing the same 256 messages (see column 12, second paragraph). Although Rhoads does not disclose that the saved messages are energy values, however, Rhoads's reference contains a general teaching of saving a value in a memory and sending only the index of that value to the other parties in a communication system to increase the security of the system (see the abstract). The same teaching can be applied to the energy values.

Applicant's Argument: Applicant further argues that Rhodes discloses that the telephone randomly generates a number between 1 and 256, which serves as an index to these stored messages. Claim 1 recites "selecting an index value representing the energy value." Hence, as disclosed by Rhodes, a random generation of the index value would not work if combined with the other references of record to produce the claimed invention.

Examiner's Response: Since Applicant in the body of claim does not disclose how the indexes have been selected, generating an index for the stored messages has been interpreted as selecting an index value representing with a message.

Applicant's Argument: Applicant argues that the Examiner does not explain how to modify the Park forward link transmission design with the Rhoads random number message indexing, the LaRosa wireless management design, and the Saeijs MPEG transmission design.

Examiner's Response: Examiner asserts that regarding the modifications suggested by reference Rhoads, reference Park can be modified for instance by adding a look-up table to the system and saving all the energy values in the lookup table. Park can be modified further by allocating an index number to each energy value and transmitting the index value, instead of the energy values. Regarding the teachings of references LaRosa and Saeijs, the access message generator can be modified in a way that it would transfer destination address data, representing the identity of the receiver to receive the transmission packets, the transmission rate of the packets, and the number of packets to carry the full amount of the data payload, and timing of the arrival of the sub-packets in additions to the energy values.

Applicant's Argument: Applicant argues that the deficiencies of Park are filled in with Rhoads" to achieve a higher level of security of the system, however security is not part of the claims not is security discussed to any significant extent in the present application.

Examiner's Response: Examiner asserts that generally in wireless communication systems security is always a concern and since Park discloses a wireless communication system, it would have been obvious to one of ordinary skill in the art to use the techniques known in the art and modify Park to improve the security of the communication system.

Applicant's Argument: Applicant argues that the motivation to combine Park and Rhoads with LaRosa is "to improve error correction and detection at the receiver." This

is not a motivation to combine- it is an after-the-fact conclusory statement used as justification for combining two unrelated references to invalidate the claims.

Examiner's Response: Examiner asserts that reducing the transmission error in the communication systems is always desirable and it would have been obvious to one of ordinary skill in the art at the time of invention to modify Park as suggested by LaRosa to improve error correction/detection in the communication system and therefore improve the performance of the system.

Applicant's Argument: Applicant argues that Saeijs is tossed in "to improve the efficiency of communication," again a justification and not a motivation.

Examiner's Response: Examiner asserts that one of the well-known methods for error correction in a communication system is to report the arrival time of the packets. It would have been obvious to one of ordinary skill in the art at the time of invention to use methods known in the art (i.e. to report the arrival time of the packets to the receiver) to facilitate data recovery at receiver and improve the efficiency of communication system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 6-10, and 15-18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (hereafter, referred as Park) (US 6,643,520), Rhoads (US

6,278,781), and LaRosa et al. (hereafter, referred as LaRosa) (US 6,628,965), further in view of Saeijs et al. (hereafter, referred as Saeijs) (US 6,556,590).

As to claims 1, 8, and 9, Park discloses a method for determining an energy value (see column 3, lines 14-49) for a transmission from a first station (i.e., a mobile station) to a second station (i.e., a base station) based on preamble (the pilot signal disclosed by Park has been interpreted as the preamble because preambles and pilots are both well known to the receiver and they have the same functionality) information received (see Fig. 2, signal 212 received at the mobile station) and processed at the first station (see Fig. 2, block 214, measuring the strength or energy of the pilot has been interpreted as processing the pilot); forming a message carrying the energy value (see Fig. 2, signal 216, Fig. 3, signal from 353 to 313, and column 3, lines 13-49); and transmitting the message to the second station (see Figs. 2 and 3), wherein the energy value is a pilot to traffic ratio (see column 3, lines 14-44). Park does not disclose that the energy value is the traffic to pilot ratio as oppose to pilot to traffic ratio, however, since both ratios represent the relative magnitudes of two quantities, it would have been obvious to one of ordinary skill in the art to pick any of these ratios (either pilot to traffic or traffic to pilot) to convey the energy information (i.e. conveying the energy value of the signal transmitted in the channel) in order to obtain the same result. Park discloses all the subject matters claimed in claims 1, 8, and 9, except that there is a decoder residing in the second station. However, Examiner would like to take official notice that it would have been extremely obvious to one of ordinary skill in the art at the time of invention to include a decoder in the base station to enable the base station to

recover the transmitted signals. Park also does not disclose locating the energy value in a look-up table and selecting an index value associated with the energy value, and forming a message carrying the index value. Furthermore, Park does not disclose that the message carries an identity of a target destination of the payload data, a transmission rate of a sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of arrival of the sub-packets. As to the first limitation, Rhoads discloses a wireless communication system (see the abstract), wherein a ROM in the telephone device stores 256 different messages. Rhoads further discloses that when the telephone is operated, it generates an index for the stored messages and transmits this index to the call site allowing the central office station to identify the expected message from the matching database on a secure disk 52 containing the same 256 messages (see column 12, second paragraph). Although Rhoads does not disclose that the saved messages are energy values, however, Rhoads's reference contains a general teaching of saving a value in a memory and sending only the index of that value to the other parties in a communication system to increase the security of the system (see the abstract). Therefore for the reason stated above, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Park as suggested by Rhoads to achieve a higher level of security in the system. Rhoads does not disclose that the ROM is a look-up-table, however, using a look-up table instead of a ROM is a matter of design choice and it would have been obvious to one of ordinary skill in the art at the time of invention to use a look-up table instead of the ROM to meet the design requirements of the system. Park and Rhoads, disclose all the subject

matters claimed in claims 1, 8, and 9, except that the message also carries an identity of a target destination of a data payload, a transmission rate of the sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of the arrival of the sub-packets. LaRosa, in the same field of endeavor, discloses that in a wireless communication system (see column 1, lines 22-27), the transmission packets may desirably contain: destination address data, representing the identity of the receiver to receive the transmission packets, the transmission rate of the packets, and the number of packets to carry the full amount of the data payload (see column 6, lines 28-45). Although LaRosa does not expressly disclose transmitting the transmission rate and number of sub-packet as oppose to packets, it would have been clearly recognizable to one of ordinary skill in the art at the time of invention to communicate the number and the transmission rate of sub-packets instead of packets to meet the design requirement of the system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park and Rhoads as suggested by LaRosa to improve error correction and detection at the receiver. Park, Rhoads, and LaRosa disclose all the subject matters claimed in claims 1, 8, and 9, except that the message also contains a timing of the arrival of the sub-packets. Saeijs discloses a method for transmitting timing critical data (see the abstract). Saeijs discloses that the transmitter side (interpreted for instance as a mobile station) of the channel tags each transmission unit (i.e. a packet (or as explained above it can alternatively be a sub-packet), see column 2, lines 1-25), with the location of the timing critical data and its expected arrival time (see the abstract and column 22, lines 15-40). It would have been

obvious to one of ordinary skill in the art at the time of invention to modify Park, Rhoads, and LaRosa as suggested by Saeijs to transmit arrival time information to the receiver to improve the efficiency of communication for time sensitive data information.

As to claim 10, Park discloses an apparatus comprising: a transmission power control unit (see Fig. 3, the apparatus shown in Fig. 3 has been interpreted as a power controller) for determining an energy value (see column 3, lines 14-49) for a transmission from a first station (i.e., a mobile station) to a second station (i.e., a base station) based on preamble information (the pilot signal disclosed by Park has been interpreted as the preamble because preambles and pilots are both well known to the receiver and they have the same functionality) received (see pilot signal received at block 351) and processed at the first station (see column 3, determining the strength or energy of the pilot signal has been interpreted as processing the pilot signal); a channel element (see block 353) for forming a message carrying the energy value (see Fig. 2, signal 216, Fig. 3, block 353, and column 3); and transmitting the message to the second station (see Figs. 2 and 3), wherein the energy value is a pilot to traffic ratio (see column 3, lines 14-44). Park does not disclose that the energy value is the traffic to pilot ratio as oppose to pilot to traffic ratio, however, since both ratios represent the relative magnitudes of two quantities, it would have been obvious to one of ordinary skill in the art to pick any of these ratios (either pilot to traffic or traffic to pilot) to convey the energy information (i.e. conveying the energy value of the signal transmitted in the channel) to obtain the same results. Park discloses all the subject matters claimed in claim 10, except that there is a decoder residing in the second station. However,

Examiner would like to take official notice that it would have been extremely obvious to one of ordinary skill in the art at the time of invention to include a decoder in the base station to enable the base station to recover the transmitted signal. Park also does not disclose locating the energy value in a look-up table and selecting an index value associated with the energy value, and forming a message carrying the index value. Furthermore, Park does not disclose that the message carries an identity of a target destination of the payload data, a transmission rate of a sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of arrival of the sub-packets. As to the first limitation, Rhoads discloses a wireless communication system (see the abstract), wherein a ROM in the telephone device stores 256 different messages. Rhoads further discloses that when the telephone is operated, it generates an index for the stored messages and transmits this index to the call site allowing the central office station to identify the expected message from the matching database on a secure disk 52 containing the same 256 messages (see column 12, second paragraph). Although Rhoads does not disclose that the saved messages are energy values, however, Rhoads's reference contains a general teaching of saving a value in a memory and sending only the index of that value to the other parties in a communication system to increase the security of the system (see the abstract). Therefore for the reason stated above, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Park as suggested by Rhoads to achieve a higher level of security in the system. Rhoads does not disclose that the ROM is a look-up-table, however, using a look-up table instead of a ROM is a matter of

design choice and it would have been obvious to one of ordinary skill in the art at the time of invention to use a look-up table instead of the ROM to meet the design requirements of the system. Park and Rhoads, disclose all the subject matters claimed in claim 10, except that the message also carries an identity of a target destination of a data payload, a transmission rate of the sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of the arrival of the sub-packets. LaRosa, in the same field of endeavor, discloses that in a wireless communication system (see column 1, lines 22-27), the transmission packets may desirably contain: destination address data, representing the identity of the receiver to receive the transmission packets, the transmission rate of the packets, and the number of packets to carry the full amount of the data payload (see column 6, lines 28-45). Although LaRosa does not expressly disclose transmitting the transmission rate and number of sub-packet as oppose to packets, it would have been clearly recognizable to one of ordinary skill in the art at the time of invention to communicate the number and the transmission rate of sub-packets instead of packets to meet the design requirement of the system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park and Rhoads as suggested by LaRosa to improve error correction and detection at the receiver. Park, Rhoads, and LaRosa disclose all the subject matters claimed in claim 10, except that the message also contains a timing of the arrival of the sub-packets. Saeijs discloses a method for transmitting timing critical data (see the abstract). Saeijs discloses that the transmitter side (interpreted for instance as a mobile station) of the channel tags each transmission unit (i.e. a packet

(or as explained above it can alternatively be a sub-packet), see column 2, lines 1-25), with the location of the timing critical data and its expected arrival time (see the abstract and column 22, lines 15-40). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park, Rhoads, and LaRosa as suggested by Saeijs to transmit arrival time information to the receiver to improve the efficiency of communication for time sensitive data information.

As to claims 7 and 16, Park shows that the first station is a remote station and the second station is a base station (see Figs. 2 and 3).

As to claims 6 and 15, Park does not disclose that the first station is a base station and the second station is a remote station. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Park and transfer the power report from the base station to the mobile station instead to control the transmission power of the signals transmitted from the mobile station and therefore reduce the power consumption in the whole system.

As to claim 17, Park discloses an apparatus comprising: a transmission power control unit (see Fig. 3, the apparatus shown in Fig. 3 has been interpreted as power controller) for determining an energy value (see column 3, lines 14-49) for a transmission from a first station (i.e., a mobile station) to a second station (i.e., a base station) based on preamble information (the pilot signal disclosed by Park has been interpreted as the preamble because preambles and pilots are both well known to the receiver and they have the same functionality) received (see pilot signal received at block 351) and processed at the first station (see column 3, determining the strength or

energy of the pilot signal has been interpreted as processing the pilot signal); **a** channel element (see block 353) for forming a message carrying the energy value (see Figs. 3, block 353); and transmitting the message to the second station (see Figs. 2 and 3), wherein the energy value is a pilot to traffic ratio (see column 3, lines 14-44). Park does not disclose that the energy value is the traffic to pilot ratio as oppose to pilot to traffic ratio, however, since both ratios represent the relative magnitudes of two quantities, it would have been obvious to one of ordinary skill in the art to pick any of these ratios (either pilot to traffic or traffic to pilot) to convey the energy information (i.e. conveying the energy value of the signal transmitted in the channel) to obtain the same results. Park does not disclose that the transmitter is adapted to transmit the message in a forward link channel to the remote stations. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use the techniques taught by park and transmit the message in a forward link (as oppose to the reverse link as taught by Park) to control the transmission power of the signals transmitted from the mobile station as well and therefore reduce power consumption in the whole system. Park discloses all the subject matters claimed in claim 17, except that there is a decoder residing in the second station. However, Examiner would like to take official notice that it would have been extremely obvious to one of ordinary skill in the art at the time of invention to include a decoder in the base station to enable the base station to recover the transmitted signal. Park also does not disclose locating the energy value in a look-up table and selecting an index value associated with the energy value, and forming a message carrying the index value. Furthermore, Park does not disclose that

the message carries an identity of a target destination of the payload data, a transmission rate of a sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of arrival of the sub-packets. As to the first limitation, Rhoads discloses a wireless communication system (see the abstract), wherein a ROM in the telephone device stores 256 different messages. Rhoads further discloses that when the telephone is operated, it generates an index for the stored messages and transmits this index to the call site allowing the central office station to identify the expected message from the matching database on a secure disk 52 containing the same 256 messages (see column 12, second paragraph). Although Rhoads does not disclose that the saved messages are energy values, however, Rhoads's reference contains a general teaching of saving a value in a memory and sending only the index of that value to the other parties in a communication system to increase the security of the system (see the abstract). Therefore for the reason stated above, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Park as suggested by Rhoads to achieve a higher level of security in the system. Rhoads does not disclose that the ROM is a look-up-table, however, using a look-up table instead of a ROM is a matter of design choice and it would have been obvious to one of ordinary skill in the art at the time of invention to use a look-up table instead of the ROM to meet the design requirements of the system. Park and Rhoads, disclose all the subject matters claimed in claim 17, except that the message also carries an identity of a target destination of a data payload, a transmission rate of the sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of the arrival of the

sub-packets. LaRosa, in the same field of endeavor, discloses that in a wireless communication system (see column 1, lines 22-27), the transmission packets may desirably contain: destination address data, representing the identity of the receiver to receive the transmission packets, the transmission rate of the packets, and the number of packets to carry the full amount of the data payload (see column 6, lines 28-45). Although LaRosa does not expressly disclose transmitting the transmission rate and number of sub-packet as oppose to packets, it would have been clearly recognizable to one of ordinary skill in the art at the time of invention to communicate the number and the transmission rate of sub-packets instead of packets to meet the design requirement of the system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park and Rhoads as suggested by LaRosa to improve error correction and detection at the receiver. Park, Rhoads, and LaRosa disclose all the subject matters claimed in claim 17, except that the message also contains a timing of the arrival of the sub-packets. Saeijs discloses a method for transmitting timing critical data (see the abstract). Saeijs discloses that the transmitter side (interpreted for instance as a mobile station) of the channel tags each transmission unit (i.e. a packet (or as explained above it can alternatively be a sub-packet), see column 2, lines 1-25), with the location of the timing critical data and its expected arrival time (see the abstract and column 22, lines 15-40). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park, Rhoads, and LaRosa as suggested by Saeijs to transmit arrival time information to the receiver improve the efficiency of communication for time sensitive data information.

As to claim 18, Park discloses an apparatus comprising: a transmission power control unit (see Fig. 3, the apparatus shown in Fig. 3 has been interpreted as power controller) for determining an energy value (see column 3, lines 14-49) for a transmission from a first station (i.e., a mobile station) to a second station (i.e., a base station) based on preamble information (the pilot signal disclosed by Park has been interpreted as the preamble because preambles and pilots are both well known to the receiver and they have the same functionality) received (see pilot signal received at block 351) and processed at the first station (see column 3, determining the strength or energy of the pilot signal has been interpreted as processing the pilot signal); a channel element (see block 353) for forming a message carrying the energy value (see Figs. 2, Fig. 3., block 353, and column 3); and transmitting the message to the second station (see Figs. 2 and 3), wherein the energy value is a pilot to traffic ratio (see column 3, lines 14-44). Park further shows that a transmitter is adapted to transmit the message in a reverse line channel to the base station (see Fig. 2, signal 216 and Fig. 3, the message transmitted from block 353). Park does not disclose that the energy value is the traffic to pilot ratio as oppose to pilot to traffic ratio, however, since both ratios represent the relative magnitudes of two quantities, it would have been obvious to one of ordinary skill in the art to pick one of these ratios (either pilot to traffic or traffic to pilot) to convey the energy information to obtain the same results (i.e. conveying the energy value of the signal transmitted in the channel). Park discloses all the subject matters claimed in claim 18, except that there is a decoder residing in the second station. However, Examiner would like to take official notice that it would have been

extremely obvious to one of ordinary skill in the art at the time of invention to include a decoder in the base station to enable the base station to recover the transmitted signal. Park also does not disclose locating the energy value in a look-up table and selecting an index value representing the energy value, and forming a message carrying the index value. Furthermore, Park does not disclose that the message carries an identity of a target destination of the payload data, a transmission rate of a sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of arrival of the sub-packets. As to the first limitation, Rhoads discloses a wireless communication system (see the abstract), wherein a ROM in the telephone device stores 256 different messages. Rhoads further discloses that when the telephone is operated, it generates an index for the stored messages and transmits this index to the call site allowing the central office station to identify the expected message from the matching database on a secure disk 52 containing the same 256 messages (see column 12, second paragraph). Although Rhoads does not disclose that the saved messages are energy values, however, Rhoads's reference contains a general teaching of saving a value in a memory and sending only the index of that value to the other parties in a communication system to increase the security of the system (see the abstract). Therefore for the reason stated above, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Park as suggested by Rhoads to achieve a higher level of security in the system. Rhoads does not disclose that the ROM is a look-up-table, however, using a look-up table instead of a ROM is a matter of design choice and it would have been obvious to one of ordinary skill in the art at the

time of invention to use a look-up table instead of the ROM to meet the design requirements of the system. Park and Rhoads, disclose all the subject matters claimed in claim 18, except that the message also carries an identity of a target destination of a data payload, a transmission rate of the sub-packet, a number of sub-packets to carry the full amount of the data payload, and a timing of the arrival of the sub-packets. LaRosa, in the same field of endeavor, discloses that in a wireless communication system (see column 1, lines 22-27), the transmission packets may desirably contain: destination address data, representing the identity of the receiver to receive the transmission packets, the transmission rate of the packets, and the number of packets to carry the full amount of the data payload (see column 6, lines 28-45). Although LaRosa does not expressly disclose transmitting the transmission rate and number of sub-packet as oppose to packets, it would have been clearly recognizable to one of ordinary skill in the art at the time of invention to communicate the number and the transmission rate of sub-packets instead of packets to meet the design requirement of the system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park and Rhoads as suggested by LaRosa to improve error correction and detection at the receiver. Park, Rhoads, and LaRosa disclose all the subject matters claimed in claim 18, except that the message also contains a timing of the arrival of the sub-packets. Saeijs discloses a method for transmitting timing critical data (see the abstract). Saeijs discloses that the transmitter side (interpreted for instance as a mobile station) of the channel tags each transmission unit (i.e. a packet (or as explained above it can alternatively be a sub-packet), see column 2, lines 1-25),

with the location of the timing critical data and its expected arrival time (see the abstract and column 22, lines 15-40). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Park, Rhoads, and LaRosa as suggested by Saeijs to transmit arrival time information to the receiver to improve the efficiency of communication for time sensitive data information.

3. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, Rhoads, LaRosa, and Saeijs, further in view of Balachandran (US 6,608,828).

As to claims 2 and 11, Park, Rhoads, LaRosa, and Saeijs, disclose all the subject matters claimed in claims 1 and 10, except for positioning the message in a preamble. Balachandran, in the same field of endeavor, discloses a header (see Fig. 8) (interpreted as preamble) (interpreted as a message) that is repeatedly transmitted and received, along with data, on a radio channel, wherein the header is decoded to identify values for the header fields (see the abstract). Balachandran further discloses that the header comprises a power reduction field (see column 4, lines 25-30) to increase the reliability of the decoding process (see column 4, lines 25-33). It would have been obvious to one of ordinary skill in the art at the time of invention to position the power control information in the preamble in order to inform the power control information to the second station right after the start of data reception and adjust signal power as soon as possible.

4. Claims 3, 4, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, Rhoads, LaRosa, and Saeijs, further in view of Guo et al. (hereafter, referred as Guo) (US 6,389,034).

As to claims 3 and 12, Park, Rhoads, LaRosa, and Saeijs, disclose all the subject matters claimed in claims 1 and 10, except that the step of transmitting the message (power control information) comprises positioning the message in a sub-packet. Guo, in the same field of endeavor, discloses an apparatus comprising a base station and plurality of remote terminals. Guo discloses a frame structure, which includes sub-channel information (including power control information) being transmitted from the base station to the remote terminals or vice versa (see column 14, last paragraph). Guo further discloses that transmitting the power control information comprises positioning the information in a sub-packet (see column 14, lines 27-41). It would have been obvious to one of ordinary skill in the art at the time of invention to place the power control information (i.e. value of the signal energy) in the sub-packet before transmitting them form a base station to a mobile station or vice versa in order to make the extraction of the information fast and easy (i.e. without detecting and processing the header) and as the result make very quick power control adjustments as suggested by Guo (see column 14, lines 29-33).

As to claim 4 and 13, Park, Rhoads, LaRosa, and Saeijs, disclose all the subject matters claimed in claims 1 and 10, except that the step of transmitting the message (power control information) comprises positioning the message between a preamble and a sub-packet. Guo shows that the step of transmitting the message comprises positioning the message between a preamble and a sub-packet (see Fig. 4B). It would have been obvious to one of ordinary skill in the art at the time of invention to position the power control information (i.e. value of the signal energy) between the preamble

and the sub-packet to make the extraction of the power control information fast and easy (i.e. without processing the preamble) and as the result make very quick power control adjustments as suggested by Guo (see column 14, lines 29-41).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leila Malek whose telephone number is 571-272-8731. The examiner can normally be reached on 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leila Malek
Examiner
Art Unit 2611

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